

Letter from A.N. Prior to Hans Kamp, December 11, 1967, II

Balliol
Dec. 11, 1967.

Dear Hans¹,

²Alternative approach to the logic of “now”: Adopt your identification of each date with a prop., & always use the symbol \underline{n} (quasi-constant prop.) for the date at which you are enunciating your formulae. With \underline{L} for “At all times” & \underline{M} for “At some time”, have S5 for \underline{L} & \underline{M} , but with RL ($\vdash \alpha \rightarrow \vdash L\alpha$) restricted to formulas not containing \underline{n} . Also have, for tense-operators: –

1.1. $CLpGp$ 1.2. $CLpHp$ ³

(these yield $\vdash \alpha \rightarrow \vdash Gp$, $\vdash Hp$, with same restrictions as on RL), and

2.1. $CGCpqCGpGq$ 2.2. $CHCpqCHpHq$
3.1. $CpGpp$ 3.2. $CpHFp$

and for dates (a, b, c etc. for date-props.)

4.1. Ma 4.2. $ALCapLCaNp$.

for these last, \underline{n} is substitutable for a , but not vice versa in these: –

5.1. \underline{n} 5.2. $CpLCnp$.

(Note that 5.1 gives $\underline{\Sigma}aa$, which is \underline{L} -able though 5.1 itself is not).

Abridge $LCnp$ to Jp , which may be read “ p now”, & we have such theorems and $CpJp$, $CpGJp$, $CpHJp$, etc; but we don't get $CPpPJp$, $CGpGJp$ &c.*⁴ – This is a minimal system; you can add what you like for transitivity, infinity, density, linearity etc., & of course enough of these will make \underline{L} easily definable in terms of \underline{G} & \underline{H} . – on second thoughts, 5.2 is superfluous. For

¹ Editors' note: This letter is an aerogramme and has been transcribed by Woosuk Park, Adriane Rini, Patrick Blackburn and David Jakobsen. It is located at the Bodleian Library Oxford in the Arthur Prior Collection, box 2. It was sent from: AN Prior, Balliol College, Oxford, England. To: Hans Kamp, Dept. of Philosophy, UCLA, 405 Hilgard Ave., Los Angeles, California 90024, U.S.A.

² Editors' note: The following paragraph has been crossed out: An alternative approach to “now”: Suppose we adopt your identification with each date with a prop., & always use the symbol \underline{n} (a propositional quasi-constant) for the date at which you are enunciating your formulae. With \underline{L} for “At all times”, \underline{M} for “At some time”, & $\underline{a}, \underline{b}, \underline{c}$ etc. as date-variables, we have the law $\vdash ELCapMKap$, & for \underline{n} we have the special law $\vdash EpLCnp$, or $\vdash EpMKnp$.

³ Editors' note: We think 1.2 should be $CLpHp$. He seems to have crossed out the H and replaced it with an L, but this crossing out doesn't make sense.

⁴ Prior's has written in the margin: *It's not clear from your notes whether you want these results or not; I hope you do.

- * C(1) p
- C(2) $NLCnp$
- K(3) $LCnNp$ (2, A 4.2)
- K(4) $CnNp$ (3)
- * (5) Np (4, A 5.1)

How close are these results to your paper? I find {2} Pragmatic Logic almost as hard to follow as you do t-symbolism. To help with the latter, I hereby translate some of my axioms: –

- 1.1. $L\phi \rightarrow \neg F\neg\phi$ 1.2. $L\phi \rightarrow \neg P\neg\phi$
- 4.2. $L(\alpha \rightarrow \phi) \vee L(\alpha \rightarrow \neg\phi)$
- 5.2. $\phi \rightarrow L(n \rightarrow \phi)$
- $N\phi =_{df} L(n \rightarrow \phi)$

Yours,

Arthur Prior